



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,216	11/26/2003	Ralph E. Burns	2599-104-C4	6271

6449 7590 10/19/2007
ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K STREET, N.W.
SUITE 800
WASHINGTON, DC 20005

EXAMINER

WRIGHT, PATRICIA KATHRYN

ART UNIT	PAPER NUMBER
----------	--------------

1797

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

10/19/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/721,216	Applicant(s) BURNS, RALPH E.	
	Examiner P. Kathryn Wright	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/2007, 4/2007, 2/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's Reply, (filed August 8, 2007) to the Official action of March 8, 2007, is hereby acknowledged and has been considered. Claims 2 and 4 were cancelled and claims 15-25 been added in the above referenced Reply. Claims 1, 3, and 5-25 are currently pending. Any objection/rejection not repeated herein has been withdrawn.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "a receptacle vessel isolating device" in claims 1, 8 and 15. It is suggested the terminology "the receptacle vessel isolating device" be changed to -- the receptacle vessel positioner assembly-- for consistency.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 8, 14-15, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Leistner et al., (US Patent no. 5,888,454), hereinafter "Leistner".

Leistner teaches an instrument for detecting the amount of light emitted from the contents of a receptacle vessel. Specifically, the instrument comprises a housing having a linear, horizontal transport path (i.e., x-axis, y-axis) along which a plurality of interconnected, adjacently-arranged receptacle vessels 20 (micro-test plate) are moved through the instrument by a transport mechanism (x-y displacement mechanism 14). The instrument includes a photosensitive device (photomultiplier tube 10) in measuring device disposed along the transport path and constructed and arranged to detect light emitted from the contents of a receptacle vessel operatively positioned with respect to the photosensitive device.

The instrument also includes a pivotal receptacle vessel-isolating device 12 positioned adjacent the transport path and constructed and arranged to pivot between: (1) a first position permitting the plurality of adjacently-arranged receptacle vessels to be moved along the transport path (upper position); and (2) a second position operatively engaging one of the receptacle vessels disposed on the transport path and operatively positioned with respect to the photosensitive device (Figs. 1 and 5). Specifically the vessel-isolating device includes an aperture panel 52 and positioner frame (reads on fixed floor plate) 68 disposed adjacent the transport path and opposite the aperture panel; see col. 3, line 25-col. 5, line 10). Note, no structure limits the positioner frame. The receptacle vessel isolating device of Leistner also has a receptacle positioner is rotatably mounted to the positioner frame at axis 54 for pivoting movement along an axis between first and second positions. The receptacle positioner includes a V-block structure (note "v-shaped" flanks 50; Fig. 6) defining opposed, spaced-apart wall

Art Unit: 1797

portions. The V-block structure being constructed and arranged such that when the receptacle positioner is in the second position, the V-block structure engages a receptacle vessel disposed in front of the aperture formed in the aperture panel and the opposed wall (col. 3, line 48- col. 4, line 24).

The transport mechanism 14 of Leistner is constructed and arranged to operatively position each of the receptacle vessels relative to the photosensitive device for a time duration sufficient to permit the photosensitive device to detect the light form the emitted from the receptacle vessel (see col. 4, lines 25+).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 3, 9, 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Leistner (US Patent no. 5,888,454) in view of Schacher (US Patent no. 5,384,094).

The teachings of Leistner have been summarized previously, *supra*. Leistner does not teach one or more sensor arranged to detect when the receptacle vessel isolating device is in the first or second position or the receptacle vessel isolating device further comprising a motor operatively coupled to the receptacle positioner for effecting powered rotation of the receptacle positioner between the first and second positions (claim 9).

Schacher teaches an instrument 3 for detecting the amount of light emitted from the contents of a receptacle vessel. Specifically, the instrument of Schacher comprises: a structure (i.e., rotor magazine 1) defining a horizontal transport path along which a plurality of adjacently-arranged receptacle vessels are moved through the instrument; a photosensitive device (photomultiplier tube 51) in measuring device 33 disposed along the transport path and constructed and arranged to detect light emitted from the contents of a receptacle vessel operatively positioned with respect to the photosensitive device. The instrument also includes a pivotal receptacle vessel-isolating device (i.e., gripper 7, swivel arm 9 having tongs 13 and a pivotal hood 41; see col. 7, 31-35). The pivotal receptacle vessel isolating device is positioned adjacent the transport path and constructed and arranged to pivot between: (1) a first position permitting the plurality of adjacently-arranged receptacle vessels to be moved along the transport path (Figs. 4, 6, 7); and (2) a second position operatively engaging one of the receptacle vessels

disposed on the transport path and operatively positioned with respect to the photosensitive device (Figs. 5, 8, see col. 5, lines 1-15).

The receptacle vessel isolating device is constructed and arranged to substantially prevent light from sources other than the operatively positioned receptacle vessel engaged by the receptacle vessel isolating device from being detected by the photosensitive device via pivotal hood 41. The pivotal hood surrounding a receptacle vessel engaged by the receptacle vessel-isolating device when the receptacle vessel-isolating device is in the second position (see col. 6, line 55 to col. 8, line 14).

With respect to claims 3 and 16, Schacher teaches a computer (not shown) which counts the movement of the gripper via stepper motor, thereby acting as a sensor and determining when the receptacle vessel isolating device is in the first and second positions (see col. 5, line 17- col. 6, line 35).

Regarding claims 9 and 21, the receptacle vessel isolating device further comprising a motor operatively coupled to the receptacle positioner for effecting powered rotation of the receptacle positioner between the first and second positions (see disclosure at col. 5, line 35- col. 6, line 35.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in Leistner, the sensor assembly of Schacher, in order to automatically detect and alert the operator when the receptacle vessel isolating device is in operation so as to avoid opening the housing and possibly exposing the detector to outside light.

Art Unit: 1797

8. Claims 10-11 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leistner (US Patent no. 5,888,454) in view of Scherzer et al. (US patent no. 3,663,816)

The instrument of Leistner does teach a photomultiplier tube adapted to detect light emitted from an object placed before a light-admitting opening at one end of the photomultiplier tube and to generate an electronic signal indicative of light detected by said photomultiplier tube. The photomultiplier tube being positioned on a side of the aperture panel opposite the transport path with the light-admitting opening thereof positioned with respect to the aperture to receive light emitted from the contents of a receptacle vessel disposed on said transport path in front of the. Aperture.

Leistner does not teach a shutter assembly mounted on the aperture panel and constructed and arranged to selectively admit light through said aperture formed in the aperture panel and into said photomultiplier tube by movement of said shutter assembly between an open position allowing light to pass through the aperture and a closed position preventing light from passing through the aperture. The shutter assembly comprising a shutter constructed and arranged for rotational movement between open and closed positions corresponding to open and closed positions, whereby the shutter blocks the aperture when the shutter is in the closed position and does not block the aperture when the shutter is in the open position. Leistner does not teach a motor operatively coupled to the shutter for effecting powered rotation of the shutter between said open and closed positions.

Scherzer et al., do teach an analyzer having transporting means for transporting a sample vial from an external loading platform into a light-tight counting chamber. The invention comprises a wall defining a counting chamber having an elongated passage, the wall having a shoulder, a sample platform, having a shaft coupled thereto to position the platform through the passage and into the counting chamber, and a shutter 60. The shutter is operatively coupled to a motor 80. Switches 68 and 69 act as sensors, which detect and control when the shutter assembly is open and closed (col. 2, line 67- col. 4 line 54.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in Leistner, the shutter assembly of Scherzer et al., in order to protect the highly sensitive photomultiplier from any outside light that may cause measurement error (col. 1, lines 19-26).

9. Claim 12-13 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leistner (US Patent no. 5,888,454) in view Babson et al. (US patent no. 5,885,529).

The teachings of Leistner have been summarized previously, supra. Leistner does not teach the analyzer having: an inlet and outlet with a transport path extending between the inlet and outlet (claim 4), the use of a bar code scanner positioned outside the housing (claim 12), or a reagent dispensing system for dispensing reagent into the receptacle vessels on the transport path (claim 13). However, an analyzer having an

inlet and outlet, a bar code scanner and reagent dispenser are considered conventional in the analyzer art, see for example, Babson et al.

Babson et al., teach an automated analyzer housing having an inlet 201 and a waste station with various transport paths located there between and with detector system disposed adjacent the transport path 215. Furthermore, Babson et al., teach a carousel 207 containing sample tubes 208 into which reagent may be dispensed via pipettor 205 or 206 (Fig. 2a). The analyzer system of Babson et al., also includes a bar code scanner 210 for providing a reliable means for keeping track of the sample tube (col. 10, lines 16-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include in Leistner, the reagent dispenser and bar code reader of Babson et al., in order to provide a reliable means to keep track of the sample tubes as they move through the analyzer system.

10. Claims 5-7 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leistner (US Patent no. 5,888,454) in view of Wihlborg (US Patent no. 5,445,794).

The teachings of Leistner have been summarized previously, *supra*. Leistner do not disclose an inlet door assembly constructed and arranged to move between an open position permitting a receptacle vessel to pass through the inlet and into the housing and a closed position restricting ambient light from entering the housing through the inlet. The inlet door assembly comprising a rotating door mounted so as to be rotatable about a generally horizontal axis of rotation. The rotating door having a

Art Unit: 1797

solid portion and an open portion. The rotating door being rotated into a position in which the open portion thereof is aligned with the inlet when the inlet door assembly is in the open position, and the rotating door being rotated into a position in which the solid portion thereof is aligned with the inlet when the inlet door assembly is in the closed position, as recited in claim 5.

Wihlborg does recite an door assembly constructed and arranged to move between an open position permitting a receptacle vessel to pass through and into the housing chamber 5 (Fig. 1) and a closed position restricting ambient light from entering the housing through the inlet. The inlet door assembly comprising a rotating door mounted so as to be rotatable about a generally horizontal axis of rotation (extending perpendicular to the plane of the paper). The rotating door having a solid portion 18 and an open portion 15, the rotating door being rotated into a position in which the open portion thereof is aligned with the inlet when the inlet door assembly is in the open position. The rotating door being rotated into a position in which the solid portion thereof is aligned with the inlet when the inlet door assembly is in the closed position. When the holes 11' 12' (11, 12) are again place into alignment, the tube is expelled into a collection site 29, which may include further analysis or transport path.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in Leistner, the door assembly of Wihlborg, in order to insure the measuring station is reliably lightproof during the measurements (col. 1, lines 21-25).

With respect to claims 6 and 7, Wihlborg teach a computer having sensors 20, 21 which both determine the presence of the tube within the chamber, thereby causing a stepper motor (not shown; col. 2, lines 49-54) to rotate the movable component 2.

Again, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in Leistner, a motor in communication with a sensor, as taught by Wihlborg, in order to reduce the manual work required by the technician. The court has held that providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art, see *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

While Wihlborg does not explicitly teach the use of a separate rotating door assembly for both inlet and outlet to the measuring system, it has been held that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced, see *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Thus, it would have been obvious to include a separate inlet and outlet door assembly, in the illuminometer system taught by Leistner and Wihlborg, in order to increase throughput by preventing bottlenecks commonly encountered in analyzers that use a single inlet/outlet.

Response to Arguments

11. Applicant's arguments filed August 8, 2007 have been fully considered but they are not persuasive. With respect to the objection to the specification as failing to provide

Art Unit: 1797

proper antecedent basis for the claimed subject matter, the Applicant assert that applicant is not required to use the exact same terminology in the claims as used in the specification. The Examiner respectfully does not agree. The Examiner points applicant attention to 37 CFR 1.75(d)(1) which states " [t]he claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See § 1.58(a))." Therefore the objection to the specification is maintained.

Applicant's arguments with respect to previous claims 1-3 and 8-9 under 35 U.S.C. 102(b) as being anticipated by Schacher (US Patent no. 5,384,094), have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. No claim is allowed.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 1797


shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Wright (f.k.a. Bex) whose telephone number is 571-272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

pkw


Jill Warden
Supervisory Patent Examiner
Technology Center 1700